

ABSTRACT

[0085] A wake-up system for an input device having a circuit board inside it has a motion sensor mounted on the printed circuit board inside the input device. The motion sensor has a motion signal output and the wake-up system further include a detection circuit connected to the motion signal output. The detection circuit has a wake-up signal output. The input device can be an optical wireless mouse. The motion sensor may be a mechanical motion sensor such as a tilt sensor having a ball contact and stationary contacts. The stationary contacts may be printed directly on the printed circuit board. The ball contact and stationary contacts form an electrical switch and are gold-plated. The ball contact is conductive. The motion sensor may be sealed to avoid corrosion. The detection circuit detects a change of state of whether the electrical switch formed by the ball contact and stationary contact is opened or closed. A first embodiment can amplify the motion signal from the motion sensor and a second embodiment can detect a low signal from the motion sensor. Also disclosed is a method of waking up an input device such as a mouse and an input device comprising the wake-up system.